



FEDERAL FACILITIES RESTORATION AND REUSE OFFICE

WASHINGTON, D.C. 20460

June 26, 2024

MEMORANDUM

SUBJECT: Implementation of EPA's "Updated Residential Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities" at Federal Facilities

FROM: Gregory Gervais, SES, Director
Federal Facilities Restoration and Reuse Office
Office of Land and Emergency Management

Digitally signed

by GREGORY
GERVAIS

Date: 2024.06.26
16:02:33 -04'00'

TO: Superfund and Emergency Management Division Directors, Regions I-X
Land, Chemicals, and Redevelopment Division Directors, Regions I-X

On January 17, 2024, the U.S. Environmental Protection Agency's Office of Land and Emergency Management (OLEM) released the "Updated Residential Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities" (U.S. EPA, 2024a; referred to as the Updated Guidance throughout this memorandum) that updated its residential soil lead regional screening level (RSL) and regional removal management level (RML) for the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as "Superfund" remedial and removal programs, respectively, and the Resource Conservation and Recovery Act (RCRA) Corrective Action program.

Under CERCLA, the information and recommendations in the Updated Guidance also apply to federal facility cleanup programs subject to CERCLA Section 120, and potentially to federal agencies using response action authorities at non-NPL sites delegated to them under Executive Order 12580 (OFR, 1987). Under RCRA, the information and recommendations in the Updated Guidance apply to federal facility corrective action cleanups that are implemented by EPA. EPA strongly encourages states that are authorized for RCRA corrective action to use these RSLs in their state-led federal facility cleanups. With respect to territorial or tribal cleanup programs, EPA encourages the use of RSLs as well.

EPA also released the updated Superfund Residential Lead Sites Handbook (U. S. EPA, 2024b; referred to as the Handbook throughout this memorandum) as a resource for site teams that identifies tools and summarizes existing best practices to promote consistency, while also providing flexibility, in addressing lead-contaminated residential sites. The Handbook includes

the most recent updates to the remedial and removal process, from the characterization of the extent of contamination through the cleanup process. It also includes individual chapters intended to be updated as new technical information and best practices become available.

EPA's Federal Facilities Restoration and Reuse Office (FFRRO) developed this memorandum to advise EPA federal facility remedial project managers and RCRA corrective action project managers who oversee response actions involving residential soil lead contamination at federal facilities. In addition to advising EPA project managers, the FFRRO guidance offers initial clarification to other federal agencies (OFAs) conducting actions under CERCLA or RCRA Corrective Action associated with lead releases from their sites.

FFRRO is committed to engagement with OFAs, states and tribes regarding application of the Updated Guidance at federal facilities. This engagement will inform future FFRRO guidance that can be used by site teams and program managers to evaluate whether sites remain protective and assess and prioritize potential additional necessary response actions to achieve protectiveness (i.e., five-year review protectiveness determinations, no further remedial action planned reexaminations, etc.). EPA site investigations will be supported by the best available science as described in the Updated Guidance.

While lead-based paint (LBP) is generally considered to be among the most common sources of lead in residential soil on federal facilities, it is not the only source. When evaluating potential exposure, it is important to develop a Conceptual Site Model (CSM) to determine if the lead is a result of paint, industrial processes, already contaminated soil from another location on base (i.e., shooting range, munitions manufacture, etc.), or another source. The Handbook addresses sites where lead contamination may have resulted predominantly from primary or secondary lead smelting, battery cracking, mining and milling operations, and other industrial/commercial releases of lead to the environment. However, since LBP, along with other sources of lead, may also be present in various media at these sites, attribution techniques are introduced to identify the potential additional sources of lead. Many federal facilities have on-installation housing or other buildings constructed prior to 1978 which are presumed to have LBP. When determining sources of lead, locating such housing and the surrounding areas may be of assistance in identifying a significant source for the lead.

As described in the Updated Guidance, CERCLA promotes collaboration to provide a more holistic approach to reducing lead exposures at residential lead CERCLA sites. Many federal, local, state, and tribal agencies have diverse legal authorities to address sources of lead exposure in communities; therefore, EPA Regions should collaborate with these entities as part of an overall site management strategy to prevent and reduce lead exposures in communities.

What is a residential property?

For the purpose of the Updated Guidance, a residential site with soil lead contamination (residential lead site) is defined as any area where children have unrestricted access to lead-contaminated soil including, but not limited to:

- properties containing single- and multi-family dwellings;
- apartment complexes;
- vacant lots in residential areas;
- schools, day-care and community centers; and
- playgrounds, parks, and greenways.

OLEM recommends when applying RSLs for potential soil lead contamination:

- Use a residential soil lead RSL of 200 parts per million (ppm).
 - However, use an RSL of 100 ppm if additional sources of lead are identified (e.g., lead water service lines, lead-based paint, non-attainment areas where the air lead concentrations exceed National Ambient Air Quality Standards [NAAQS]). The recommended RSL of 100 ppm considers aggregate lead exposure and increased risk to children living in communities with multiple sources of lead contamination.
- Document the rationale for the selected RSL, either 100 ppm or 200 ppm.

Consistent with the “Role of Background in the CERCLA Cleanup Program” (U.S. EPA, 2002a), cleanup levels should not be set at values below natural or anthropogenic background. When the Integrated Exposure Uptake Biokinetic (IEUBK) model -derived cleanup level is lower than site-specific background, the cleanup level should be set at background. EPA Regions should consult the 2002 “Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites” (U.S.EPA, 2002b) when establishing site-specific soil lead background.

As science evolves, land use changes, or EPA policy and/or guidance are revised, it may be appropriate for the federal facility, along with EPA and/or the state regulatory agency, to reassess residential areas on the NPL site with lead contamination that had been previously assigned a No Further Remedial Action Planned (NFRAP) status or unlimited use and unrestricted exposure (UU/UE) as part of a CERCLA remedial or removal action at the site. Reassessment should evaluate protectiveness and potential need for additional CERCLA response actions or RCRA corrective actions for locations with residential land use. OFAs conducting cleanups at these facilities should discuss prioritizing reassessment and other actions with its regulators.

Evaluations of previously addressed sites could be conducted in support of a CERCLA five-year review or other technical review. Site teams should consider historical site-specific documentation to determine:

- the extent of previous cleanup, including cleanup levels and the remedial and/or removal action objectives; and
- the exposure assumptions used in the risk assessment at the time of response action selection, including the use of site-specific environmental data.

Documenting Appropriate Lead Screening Level

OLEM developed the “Supplemental Framework: Selecting a Remedial Screening Level for Residential Soil Lead” (U.S.EPA, 2024c; referred to as the Framework throughout this memorandum), the associated Residential Lead Screening Level Checklist (Checklist) and Residential Lead GIS Screening Tool as the primary method to document the consideration of lines of evidence and the rationale for the selected screening level. The screening level typically applies to an entire site, rather than individual properties. For large sites, it may be appropriate to select a screening level at the operable unit level. Site teams should refer to the completed Checklist and the selected screening level in the scoping and development of a remedial investigation.

Currently, the Residential Lead GIS Screening Tool is unavailable outside of EPA. OLEM recommends that the site teams complete the checklist together to determine the appropriate screening level as part of their team meeting or planning discussions for potentially impacted sites. This would allow the teams to work through the Residential Lead GIS Screening Tool, as well as the OFA’s site maps and EJScreen, to better understand and document the site-specific factors associated with the Checklist inputs. Once completed by the team, the Checklist documenting the selected screening level should be placed in the administrative record for the site.

References

OFR, 1987. Office of the Federal Register. Executive Order 12580--Superfund implementation. Source: The provisions of Executive Order 12580 of Jan. 23, 1987, appear at 52 FR 2923, 3 CFR, 1987 Comp., p. 193, unless otherwise noted. <https://www.archives.gov/federal-register/codification/executiveorder/12580.html>

U.S.EPA, 2002a. Role of Background in the CERCLA Cleanup Program. OSWER 9285.6-07P. April 26. https://www.epa.gov/sites/default/files/2015-11/documents/bkgpol_jan01.pdf

U.S.EPA, 2002b. Guidance for Comparing Background and Chemical Concentrations in Soil for CERCLA Sites. OSWER 9285.7-41. <https://www.epa.gov/sites/default/files/2015-11/documents/background.pdf>

U.S.EPA, 2024a. Updated Residential Soil Lead Guidance for CERCLA Sites and RCRA Corrective Action Facilities. January 17. https://www.epa.gov/system/files/documents/2024-01/olem-residential-lead-soil-guidance-2024_signed_508.pdf

U.S.EPA, 2024b. Superfund Residential Lead Sites Handbook. March. <https://semspub.epa.gov/work/HQ/100003401.pdf>

U.S.EPA, 2024c. Supplemental Framework: Selecting a Remedial Screening Level for Residential Soil Lead. February. <https://semspub.epa.gov/work/HQ/100003397.pdf>

cc: Barry Breen, OLEM
Clifford Villa, OLEM
Larry Douchand, OLEM OSRTI
Lynda Kasonde, OLEM OEM
Carolyn Hoskinson, OLEM ORCR
Kathryn Caballero, OECA FFEO
Charlotte Youngblood, OGC SWERLO
Federal Facilities Program Managers, Regions I-X
RCRA Corrective Action Branch Managers, Regions I-X